

MAIL STOP AF
PATENT
1554-1003

IN THE U. S. PATENT AND TRADEMARK OFFICE

In re application of

Gunnar NORDMARK et al. Conf. 6777

Application No. 10/510,167 Group 2446

Filed: July 18, 2005 Examiner Scott M. Sciacca

Title: METHOD AND APPARATUS FOR PROCESSING DATA

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Assistant Commissioner for Patents December 22, 2009
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants request a pre-appeal brief review of the final rejection in the above-identified application. No amendments are being filed with this request.

A Notice of Appeal is filed herewith.

The review is requested for the reasons advanced on the attached sheets.

Respectfully submitted,

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REASONS IN SUPPORT OF REQUEST FOR REVIEW

Claims 1, 5-9 and 11-22 are pending. Claims 1, 9 and 19 are the only independent claims and all three are subject of the present request for pre-appeal brief review.

Claims 1, 9 and 19 stand rejected over Sonksen, U.S. Patent Publication No. 2003/0046429 in view of Kawarai, U.S. Patent Publication No. 2002/0122424 in view of Farinacci, U.S. Patent No. 7,016,351 in view of Hultsch WO 99/60708.

Sonksen discusses a packet processing apparatus implemented in a plurality of pipeline stages or a group of stages configured for a particular operation.

Kawarai discusses an interface device that is used to accommodate packets from a high-speed line efficiently and to reduce a processing load on a back stage caused by routing control.

Farinacci discusses placing multicast delivery tree information in the header of an encapsulated multicast packet, thereby relieving the intermediate routers from maintaining any state information about the multicast groups.

Hultsch discusses the removal of filler data from a data stream with a constant data rate and the reformatting of the useful data of the constant stream into packetized data. The Applicants note that the corresponding US national stage of WO 99/60708 may be found in U.S. Patent No. 7,415,037.

In the Amendment filed May 11, 2009 the Applicants amended independent claim 1 to further recite "determining, upon

said intermediate data packet (315) exiting the last of said at least two processing stages (205b,205c), (540) **whether any bits of at least one of the header end and the tail end of said intermediate data packet (315) are superfluous, then removing (545) said superfluous bits from at least one of the header end and the tail end of said intermediate data packet (315).**" (Emphasis added)

On page 6 of the final Office Action dated August 20, 2009, the Office asserts "Sonksen further teaches upon said intermediate data packet exiting the last of said at least one processing stages removing data from said intermediate packet." (See Sonksen, Abstract and Fig. 5a)

Further, on page 6 of the final Office Action the Office acknowledges that "Sonksen does not explicitly teach the removal being based upon a determination of whether bits of said intermediate data packet are superfluous," but asserts that the Abstract of Hultsch discloses such a feature.

However, the Applicants respectfully submit that the combination of the references do not teach the removal of superfluous bits from headers and/or tails of a packet.

It is noted that the rejection never mentions the removal of superfluous bits from the header or the tail. It would appear that the Office implicitly includes the header and tail as part of the payload of the packet and therefore indistinguishable from the payload. The Applicants respectfully disagree with this interpretation. It is well known in the art that a header defines

information about the packet such as its source IP address, destination IP address, Time To Live, checksum information, etc..., (See Fig. 9B of Sonksen) while the payload is the data to be transmitted. In a classic sense routers and other network equipment need not know anything about the payload of a packet, while the header is relied on for the function of network equipment.

The Applicants acknowledge that Sonksen states in ¶ 0013 "[i]n one embodiment the a method and apparatus is configured to dynamically supplement, modify, or remove data contained in a packet. The term packet includes the header or tag information of a packet in addition to any user data associated with packet." However, this can not be interpreted as removing bits from header. In well known terms a packet always contains a header and payload however, the removal of bits from the header will have profound changes on the function of network equipment while the removal from the payload will have none.

Further, Sonksen ¶ 0068 states

As shown, FIG. 5A is generally similar to FIG. 3 and illustrates a dynamic processing module and a static processing module. The dynamic processing module 502 and the static processing module 504 are part of the processing pipeline. The **dynamic processing module 502 comprises a module that may be configured to generate or modify a tag or other portion of a packet header**, such as a tag that may be attached to a portion of a packet to aid in packet processing or routing. The static processing module comprises a module dedicated to modifying or updating the TTL, TOS, error control portions, or any other portion of the packet data to reflect changes to the packet. Either of the modules

502, 504 may comprise any configuration of hardware, firmware, logic, and/or memory configured to achieve the processes described herein. The static processing module may be configured to support modification of packet header fields for IPv4, IPv6, or other data types. [Emphasis added]

Thus, Sonksen clearly discusses generating or modifying the header of a packet, but remains silent as to removing any superfluous bits of the header.

The only portion on Sonksen that explicitly discusses removing data is ¶ 0094 which states in part "[i]n this example method the dynamic processing module generates, modifies, or **removes a tag.**" (Emphasis added)

Thus, it would appear that the data removed in Sonksen, is not bits from a header and or tail, but is limited to the removal of the entire tag. Thus, *arguendo*, if one was to consider a tag equivalent to a header, Sonksen does disclose the removal of bits from the header, but removes the entire header.

Thus, Sonksen does not disclose the removal of superfluous bits from a header.

Further, the Applicants acknowledge that Hultsch discloses the removal of filler bits from a stream. The filler bits of Hultsch are not found in a header but are added to the payload to a keep a constant data rate via the circuit-switched connection. They are in fact bit stuffing of a payload. This is made clear in col. 3, lines 14-24 which state:

The compressed data is, by way of example, **compressed video data** which is generated by a video coder as a data stream DS1 with a constant data rate DRK--for

example 64 kbit/s or 2*64 kbit/s--and is transmitted via at least one circuit-switched connection of the fixed network ISDN. In this case, **the constant data rate DR_k is generated by the addition of filling data F to useful data N (bit stuffing)**. The useful data N contains the data which is necessary for the video conference, is generated by a communications terminal of the line-connected fixed network ISDN and is transported in real time to a communications terminal of the mobile communications network UMTS. [Emphasis added]

The Applicants respectfully submit that Sonksen and Hultsch, alone or in combination, fail to disclose "removing (545) said superfluous bits from at least one of the header end and the tail end of said intermediate data packet," as in claim 1.

Additionally, it is respectfully submitted that if arguendo, Sonksen disclosed removing bits from a header and/or tail, one of ordinary skill in the art would not have looked to Hultsch as it is not dealing with removing superfluous bits from packetized data, but a constant stream.

Further, it is submitted that the Office does not assert and the Applicants have not found that Kawarai and Farinacci provide any further disclosure to render the claims obvious as to the features discussed above.

Claims 9 and 19 recite similar features to claim 1 and therefore, Sonksen, Kawarai, Farinacci and Hultsch, taken separately or in combination, fail to render obvious the features of claims 1, 9 and 19.